

Unlocking the future of open data and standards: Ito's leadership in transit data intelligence



Open data and open standards have been critical drivers of innovation in the transportation sector. By enabling more transparent, accessible, and scalable solutions, open data initiatives have transformed the ways in which governments, organizations, and engineering teams build and optimize public transit systems, ultimately increasing ridership. By making data openly available, governments aim to minimize barriers to its use, encouraging developer communities to innovate. Ito is at the forefront of these efforts, committed to delivering world-class datadriven solutions for public transportation.

For over a decade, we have been an industry leader in shaping and enhancing open data, open-source tools, and data standards that power the future of mobility across the UK and the world.

This whitepaper outlines our commitment to open data and standards, showcasing specific contributions, tools, and partnerships that highlight our leadership in this space. From developing quality assurance tools for Open StreetMap to pioneering the Bus Open Data Service (BODS), we are dedicated to ensuring that public transportation data is accurate, accessible, and adaptable to future needs.

Pioneering National Access Point datasets

The National Public Transport Access Nodes (NaPTAN) dataset, managed by the Department for Transport (DfT), serves as a crucial open dataset that lists all public transport access points in the UK. This includes everything from bus stops to train stations, ferry terminals, and airports.

In order to maintain and improve the accuracy of this dataset, Ito developed the Ito NaPTAN tool. Through this tool, users could easily identify errors, verify transport nodes, and ensure that the NaPTAN dataset remained highly accurate, reliable and up-to-date.

This initiative underpins our broader philosophy of enabling open data accuracy through practical, accessible tools. By working closely with government bodies, local authorities and transport operators, we aim to empower data owners to improve their datasets, ultimately benefiting the broader transportation ecosystem.

Leadership in industry standards: GTFS fares and beyond

Standards are a cornerstone of interoperability and innovation within the transportation industry. By supporting open standards, organizations can ensure that their data and services are compatible with a range of platforms, allowing for seamless integration across different systems. Ito has been a longstanding contributor to the development and refinement of key industry standards, including General Transit Feed Specification (GTFS), TransXChange PTI, SIRI-VM and NeTEx.

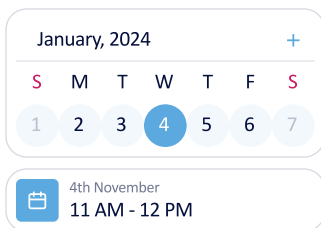
We have been active members of industry standards committees, including MobilityData, and have contributed to the development of both new and existing data standards. In particular, our work on GTFS Fares v2 has helped refine how fare structures and pricing data are shared across different transit platforms, ensuring that consumers can access consistent and reliable fare information regardless of their location or service provider.

Case study:

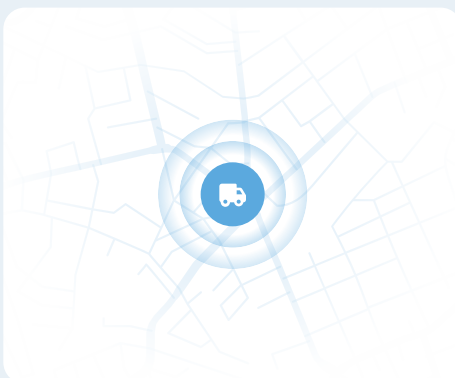
Partnering with the Department for Transport (DfT) on the Bus Open Data Service (BODS)

One of the most impactful and far-reaching projects Ito has undertaken is the development of the Bus Open Data Service (BODS), in partnership with the DfT. BODS represents a major step forward in making public transit data more open and accessible. The platform currently hosts schedule, real-time vehicle location, and fares data for over 22,000 buses across the UK.

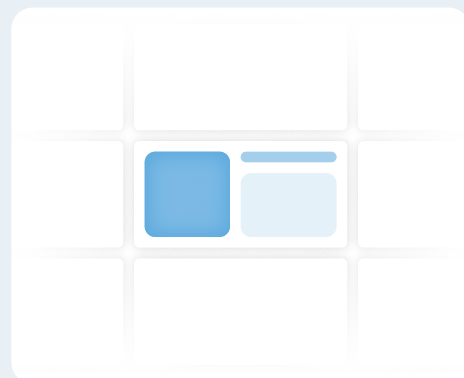
Ito played a critical role in designing and building the BODS platform, including its open-source components. By making the codebase publicly available via GitHub, we have ensured that developers and organizations can contribute to and benefit from the service. Our work on BODS also involved supporting the adoption of industry-recognized data standards, such as:



TransXChange PTI v1.1a
for bus schedules



SIRI-VM for real-time vehicle
location data



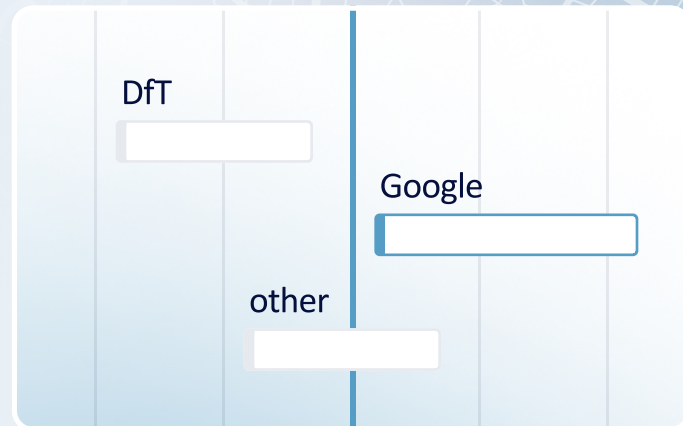
NeTEx for fare information

Ito also provides a data transformation service that translates TransXChange to GTFS, and SIRIVM to GTFS-RT, ensuring that the data is compatible with global standards and can be used by international platforms like Google Transit and new innovators to the market alike.

Open data, open source, and open standards: a commitment to innovation



At Ito, our commitment to open data, open-source platforms, and open standards is a core element of our company's ethos. We believe that open access to accurate, high-quality data is essential to driving innovation in transportation and, ultimately, an outstanding passenger experience. Our leadership in this space extends beyond building tools and platforms—we actively contribute to the communities that shape the future of mobility.



Through our work with the DfT, Google, and other partners, we have demonstrated that we are not only invested in today's solutions but also in shaping the future of open data platforms. Our participation in industry standards committees ensures that we continue to influence the direction of global transit standards, helping to align national platforms with international best practices.

Case study:

GTFS Pathways & GTFS Fares V2

Ito's differentiated capability around GTFS Pathways greatly benefits riders with disabilities by offering detailed information on station layouts, including accessible paths, elevators, ramps, and avoiding stairs. This helps riders with mobility impairments plan their trips more effectively, reducing the stress of navigating unfamiliar or inaccessible areas. It also highlights accessible routes, making transfers between transit modes easier and ensuring a smoother, more reliable journey for those with mobility challenges.

Similarly, our capability around Fares provides passengers with pricing information as they use public transportation. This additional information enables passengers to select transit with ease and confidence and enhance user experience overall.

Future directions:

Continued leadership in open national data platforms

As we look to the future, Ito remains committed to leading the development of open national data platforms. We will continue to work with operators, government bodies, and global organizations to deliver scalable, reliable solutions that improve mobility for everyone. Our expertise lies in sitting at the intersection of technology, data standards, and public services, ensuring that we are always at the forefront of innovation.

We believe in the importance of contributing to open-source communities and collaborating with SMEs, ensuring that our products remain flexible, adaptable, and widely used. By maintaining a firm commitment to open data, we aim to keep supporting innovation in transportation for years to come.

By working with partners, operators, and developers, Ito ensures that the future of transportation is open, innovative, and accessible to all.



Denver, US | London, UK

✉ info@itoworld.com

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